



Storrow Drive Tunnel Project
Joint Meeting of the Landscape and Transportation Advisory Committees
Joint Committee Meeting Number 3

April 25, 2007

Summary Minutes

The meeting was opened by Elliott Laffer, Chair of the Transportation Advisory Committee. Mr. Laffer said this was a joint meeting of the committees and he invited the participants to introduce themselves and note their affiliations, if appropriate. (Please see the list of attendees at the end of the summary.)

Mr. Laffer said there was a tight meeting agenda and since the traffic presentation was not quite ready, he and Ms. Todisco felt it was appropriate to begin with a discussion of the Draft Criteria for the Preferred Option. They welcomed Karl Haglund, DCR Regional Planner, to make the presentation.

Review of Draft Criteria for the Preferred Option

Mr. Haglund noted that the meeting handouts include a set of the *Draft Criteria for the Preferred Option*. These criteria were outlined and discussed in the initial meetings on the project. They include construction-period goals and long-term goals for the Esplanade, traffic and the neighborhoods. Mr. Haglund said that he and Jim Baecker, the Project Manager, spent some time discussing the criteria and came to the conclusion that what DCR really needs is the groups' evaluation of each of the impacts on traffic, the Esplanade and the neighborhoods. While the group could engage in a debate on the particular elements of each of the columns and entries, Mr. Haglund said DCR would prefer that each group weigh the strengths and weaknesses of each option on the general criteria, making their comments as detailed as possible. DCR would like the groups to submit this letter within the next six weeks (after the presentation on construction conditions traffic modeling on June 6). In essence, DCR is looking for useful criticisms of each of the options as it prepares the Draft Environmental Impact Report (DEIR). It wants the committee members to share their opinions as the DEIR is being prepared so the issues they raise can be addressed in the DEIR; or, if the information is not yet available, in the FEIR.

Ms. Todisco asked if Mr. Haglund feels that these are the correct criteria. Mr. Haglund said the group could discuss the appropriateness of each item, but there is nothing magic about this particular list. It is an organizing approach for distinguishing between the options, but the groups will have specific ideas and criticisms. The groups should use the criteria as a way to organize their approach to the options and to compare difficult issues.

Mr. Laffer asked if DCR will use the letters to select a preferred alternative or will append the letters to the DEIR? Mr. Haglund said both: DCR will consider the comments before making its final decision and it will include the comments as an appendix in the DEIR. The comments will form a significant element of the DEIR.

Bob O'Brien asked Mr. Haglund if increasing traffic volume would be an acceptable criterion. Mr. Haglund said it has significant consequences, and it certainly is a criterion people can comment on, one way or another. Marilyn Wellons asked when the cost information will be available. Mr. Haglund said that the relative costs have not changed in order of magnitude and the committee will be updated before the DEIR on revised cost estimates.

Mr. Baecker said that the Secretary's Certificate outlines the information that will be included in the DEIR for all four families of options. There will be 15 chapters, which will assess the impacts on the parameters the Secretary has specified. DCR wants to know what each group's assessment of all the options strengths and weaknesses are before making a decision on a preferred alternative.

Steve Wintermeier asked if DCR will use cost to drive its recommendation? Mr. Baecker said that cost will be one of the factors, but it will not be a determining factor. Mr. Wintermeier said that construction duration and longevity are not included in the table. Mr. Baecker said just to add them in – DCR will not ignore a comment or criteria that is not in the table. If it's important to the group, DCR wants to hear about it. Meg Mainzer-Cohen said it might be difficult to work through all of the criteria. Mr. Baecker suggested that the table be used as a framework for constructing each letter. The groups do not have to cover each item, but the table is a good starting point.

Mr. Haglund reminded the committee members that DCR will recommend an option after considering this process and the opinions of the committees, but two Secretaries will also be involved in the process. He anticipates there will be tradeoffs and negotiations until the recommendation is made.

Mr. Haglund said he has been reading the book Tom Lisco recommended on the development of Millennium Park in Chicago and he has been fascinated by the decision making, the willingness of private capital to invest in the public realm and how the project changed the city. At a cost of \$450 million, it was a bargain in terms of what it accomplished, and he hopes the groups will share any vision they have for Storrow Drive.

Nancy Farrell will follow up with committee members and remind them to prepare a comment letter. DCR welcomes comments from the public as well.

Traffic Modeling Data, Permanent Conditions, for the B and D Sub-options

In order to have enough time for the traffic presentation, questions and discussion afterward, Mr. Laffer asked the committee members to hold their questions until the end of the presentation.

Traffic Presentation – Regional Travel Demand Model

Sanjay Kaul, Central Transportation Planning Staff (CTPS) began the presentation and used a series of Powerpoint slides to illustrate his remarks. Mr. Kaul said the presentation was essentially a continuation of the meeting on April 12. He would present the Travel Demand Model estimated traffic volumes for AM and PM peak periods, this time for options B-1, B-2, D-1 and D-2. Tom Lisco, CTPS, would present queue lengths and delays on Storrow Drive for AM and PM peak periods and Mike Wasielewski, Beta Engineers, would present the analysis for 38 intersections for peak hours.

Mr. Kaul said that the area of focus for this study covers the area from West of North Harvard Street to Leverett Circle. The results include traffic volumes on Storrow Drive and turning moves for 38 preselected intersections within this area. *

Mr. Kaul explained that the model used Option A, which involves renovating the tunnel in its current configuration, as the No Build option, comparing the other options to the results for A

Option B-1 is an at-grade parkway with no traffic signals at Arlington and Berkeley St. and no tunnel. The Berkeley Street ramp does not include a westbound on ramp, and Arlington St. has no ramps, east or west, and there is a new pedestrian footbridge. For the eastbound direction, Clarendon St. sees about 100% increase in traffic with the exit at Clarendon instead of at Arlington. Westbound, drivers exit at Charles Circle because the Arlington St. exit is gone. This ramp shows a 77% increase in exiting vehicles, with an increase in the volume on Charles St. There is less traffic between Longfellow Bridge and the Arlington St. area since more cars have left Storrow Drive at Charles Circle.

In the PM Peak Period for Option B-1, for eastbound direction, about 5% more vehicles exit at Charlesgate, and Clarendon St. sees about a 50% increase in traffic. For the westbound direction, slightly less vehicles are getting on at Leverett Circle. Drivers chose alternate routes as they did during the AM peak period, and traffic exiting at Charles Circle increases by about 84%. Most of this traffic ends up on Charles Street and other adjoining roads. Vehicles using back roads then get on the Storrow Drive westbound at Charlesgate, where the entering traffic volume sees an increase of about 22%. Some traffic is diverted to Masspike and Memorial Drive.

Mr. Kaul said that CTPS did not model Option B-2 because it acts just like Option C from the traffic point of view. (See the minutes of April 12 for the C Option analysis.)

* Please refer to the minutes of the April 12 meeting for more background on the traffic model.

Mr. Kaul reminded the audience that the D options include two tunnels in two directions. In addition to D, which the team addressed in the April 12 meeting, CTPS looked at D-1 and D-2.

Option D-1 is also a two-tunnel option with an at-grade westbound exit to Arlington St. adjacent to Mugar Way. At Berkeley St., drivers can only drive eastbound. Mr. Kaul said that there are structural differences between D and D-1, but the traffic acts in the same manner, so there is little difference between the two.

Option D-2 is a two-tunnel option with a westbound exit at Berkeley Street instead of Arlington Street. It is similar to D, except that it moves the westbound exit to Berkeley Street and the eastbound entrance is from Clarendon St. The directions of Berkeley and Clarendon Streets are reversed, with Berkeley going south and Clarendon north between Storrow Drive and Columbus Avenue.

In the AM Peak Period, the eastbound traffic acts very similar to Option A. At Dartmouth, volume is reduced by 30% versus the former Clarendon St. exit because the route opposes the flow and drivers have to go around to reach the same destinations. Volume at Arlington St. increases by 50%. There is a small reduction in eastbound traffic using Clarendon St. and further to the east, the traffic acts like Option A. Westbound, more vehicles are entering from Charles Circle and are exiting at Berkeley St., which sees a 25% increase, or 900 more vehicles during the peak period. There is a slight reduction going to the west. Ramps at Fenway are carrying more or less the same volume, and there is an increase in volume on a number of Back Bay streets.

In the PM Peak Period for D-2, there is little difference in traffic entering the roadway. There is more traffic reduction on Dartmouth St. - about 55%. Volume at Arlington St. increases by 60%. There is a small reduction in eastbound traffic using Clarendon St. and further to the east, the traffic acts like Option A. Westbound, there is a slight increase before the Longfellow Bridge with vehicles exiting at exiting at Berkeley St., which sees a 15% increase, or 600 more vehicles during the peak period.

Queues and Delays

Tom Lisco, CTPS, commented on the differences between the D's and other families of options. He noted that the D changes make the Esplanade and its approach more attractive and user friendly. Option D-1 leaves the Arlington St. off ramp – a major exit in terms of volume – on the surface, while D-2 moves the exit to Berkeley Street. The street direction reversals are all in support of making the park more accessible. These changes do have local traffic impacts, so the committee members have to examine whether that goal is worthwhile.

Mr. Lisco said he would be presenting results from the assignment and queuing models. Options D, D-1, and D-2 act almost exactly the same in terms of queues. In the AM Peak Period, traffic moves slowly between River Street and the Fenway exits. There is trouble at the Charles St. off ramps and the Charles Circle off ramp is a bottleneck up to Route I-

93 and beyond. In the afternoon, Kenmore to River St. is slow, and there are major queues from Charles St. back up to Route I-93, both eastbound and westbound, not dissimilar from what drivers see today.

Turning to Option B-1, Mr. Lisco said that traffic from Clarendon St. to Charles Circle wants to close to double its volume. The off ramp queues slow both ramp and regular traffic. The ramps don't have the capacity to handle all the vehicles wanting to get off Storrow Drive and drivers can't exit at Charles Circle since it is overflowing and does not have the capacity it would need to handle the number of vehicles wanting to enter it. Mr. Lisco said it is difficult to estimate the length of the queues on the ramps, but the queue to I-93 North would be at least as long as it is today and Charles Circle would be a problem.

Mr. Lisco reviewed the issues associated with the options, noting that there are concerns in addition to traffic, including access to the Esplanade, noise, cost, construction duration, etc. He said that many people seem to find the B/parkway option beguiling, and he can appreciate the appeal. He noted, however, that it was his opinion that the parkway interferes with Storrow Drive's role as a collector/distributor roadway, serving neighborhoods, institutions and businesses nearby. He said that Storrow Drive plays an important role in the economy of the city of Boston. He encouraged the committee members to look ahead, not just 15 or 20 years but to 50 years when Storrow Drive will probably be a markedly different road than it is today. He anticipates private investment in the city's infrastructure to maintain and improve the region. He noted that Harvard University, for example, is talking about covering part of Storrow Drive adjacent to the Charles River and its new Allston campus. To the east, Boston University is looking at its connections to the river and making its urban campus more green. He hopes that the committee members will accept the need for a vision that works for the city.

Level of Service Analysis Results Presentation

Mike Wasielewski, Beta Group, presented an analysis of the effects of the traffic model information at 38 intersections for the B and D sub-options. Mr. Wasielewski reviewed the color code for the system of maps he was presenting.

Mr. Wasielewski said that in comparing Option A to the B sub-options, the AM Peak Period results are largely unchanged from Bowker to the west. At Charles Circle, there is a large shift in demand for trips down Charles Street, decreasing the level of service (LOS) there to F'. (F' indicates the worst of the worst: in general, a vehicle would wait less than 10 seconds at an intersection with an A level and more than 80 seconds at an F rated one. The F' intersections go beyond the typical wait and would involve more than 110 seconds.) The LOS continues to degrade to the Charles and Beacon Streets intersection. Arlington St. is an F'; Berkeley is unchanged; and some of the intersections along Commonwealth Ave. improve and some are degraded.

During the PM Peak hours, Mr. Wasielewski said the same trend is apparent at Charles Circle and from Charles St. to Beacon St., where the LOS is F'. At Arlington St., it is also

F', with little improvement at Berkeley and Beacon Streets. Service at Clarendon St. is also degraded.

Turning to the D sub-options, Mr. Wasielewski said there are few changes in the westbound direction, with Charles Circle fairly stable. In Option D-2, there is more traffic on Berkeley Street – reaching F', which relieves Charles Circle somewhat. The local network sees more traffic, such as on Commonwealth Ave., and the same trend exists in the PM Peak.

Mr. Wasielewski turned to several depictions of **approach queues** at the same intersections. These are depicted by colored lines of varying lengths that show estimate the length of the queue that would be present (A, blue; B, red; C, green and D, gold) during the peak periods under discussion.

For A, B, B-1 and B-2, the queues at Charles Circle increase substantially as the westbound exits are removed. There are long queues on Charles St. and Commonwealth Ave. In the afternoon, Mr. Wasielewski said long queues would be on Storrow Drive into Charles Circle, and there would be problems on Beacon St. and Commonwealth Ave.

For the D options, there are fewer queues. There are some at Beacon at Arlington and at Berkeley St. When the off ramp is at Berkeley St. the over capacity moves in the opposite direction. In the afternoon, there is a big jump in queuing at Charles Circle and problems at Beacon St., particularly at Berkeley and Clarendon.

Presentation on Capacity in the MBTA System

Joe Cosgrove, MBTA's Director of Planning and Development, thanked the committee for inviting him to present an overview of the MBTA and its capacity issues. He recognized Scott Peterson from CTPS, who helped him with the development of a PowerPoint presentation on the Rapid Transit and Bus System.

Mr. Cosgrove gave the committee members background information on the MBTA's system. It is the fourth or fifth largest system in the nation, serving 4.5 million people in the region who take 1.1 to 1.2 million trips per day. These figures break down as follows: buses, 350,000 trips/day; subway, 600,000; BRT???, 25,000; commuter rail, 150,000; the RIDE, 5,000; and others, 5,000. The MBTA has a \$3.4 billion capital improvement program over the next five years. It is in the process of replacing 30% of the fleet for a total of 600 cars. The MBTA has 60,000 parking spaces available for its passengers.

Mr. Cosgrove turned to the Rapid Transit and BRT Capacity Analysis that was completed for the 2006 Regional Transportation Plan (see the handout, attached). Since it is closest to Storrow Drive, the Green Line is of most interest to the committee members. The Green Line – which in 2005 was running 136 vehicles at peak time – as of this winter is running 150 cars at peak hours. In the morning rush hour, the headways (time between arrivals) are about 5-7 minutes on the branch lines and about 1 ½ minutes in the central subway.

Mr. Cosgrove reviewed the figures on Green Line capacity. Train capacity is expressed as a ratio of the volume of trains over the maximum load standard capacity (the number of passengers who fit in a two car train consist, or crush); the closer the volume/capacity ratio is to 1, the closer the system is to capacity. On the Green Line, the current volume/capacity ratio is 0.85 for the year 2000 base line; for the year 2030, no-build alternative, the ratio is 0.88. The Green Line is pretty close to capacity. Mr. Cosgrove also reviewed the capacity figures for the Orange Line and the Blue Line.

Returning to the Green Line, Mr. Cosgrove said that there will be 85 new cars operating by June and some of the speed restrictions in the system will be eliminated. This summer, the MBTA will shut down the D line to make improvements (using buses while the power upgrades, track improvements and bridge replacements are undertaken).

The MBTA owns almost 1,000 buses, including 49 Silver Line buses. The average age of the buses has been declining and there is a focus on low emission and ultra low sulphur buses. The T is purchasing 155 more buses by the end of 2008, which will be equipped with GPS tracking systems. The T will be monitoring the buses from its High St. control center. In terms of capacity, Mr. Cosgrove said that the T is focusing on its 15 most important routes that represent 41% of its bus system ridership. It is testing frequency and other factors to see how they affect ridership. The next phase of planning will be developed for the next five to 10 years.

Discussion

Mr. Laffer welcomed questions.

Bob O'Brien said it is clear to him that the surface parkway options are not offering solutions to improve Charles Circle and protect the Arlington Street exit. There must be some kind of parkway, civil engineering solution that can grade separate the lanes to allow an Arlington St. exit. Mr. Laffer reminded the committee members that there would be a meeting of people interested in discussing the parkway options, and he welcomed Mr. O'Brien to participate.

Carrie Russell said the MBTA presentation did not tell the committee how the T can play a role in mitigating the impact of Storrow Drive construction and in the long term. The presentation did not address these important issues. Mr. Cosgrove said that there are other options to consider, such as the model in London, which established congestion free zones where there is congestion pricing and double the amount of bus service. The city of London managed to build bus maintenance facilities in a record time and undertook a plan to change traditional driving behaviors. Ms. Russell said she wants to see that kind of thinking for Boston. Mr. Cosgrove said that the T is running the oldest system in the country and targeting investments in service reliability and equipment. It has to do so because, for example, two-thirds of the commuter rail fleet will reach its useful life by 2015, and half of the Red Line vehicles are in the same condition. Ms. Russell said she would like to see a presentation on what the MBTA can recommend as a solution to the traffic that is likely to result from the work on Storrow Drive. Mr. Cosgrove said that the

T is focused on addressing the deferred maintenance needs of its existing infrastructure and could possibly accelerate this kind of work if more funds are available.

Tom Nally asked if DCR can put together a one- or two-page summary with the critical information that the members can take to their organizations. There is so much information in the presentations and it is difficult to prioritize it. Mr. Baecker said DCR would work on such a summary and try to get it to members in two weeks.

There was a brief discussion involving clarifying questions on some of the diagrams. Mr. Laffer encouraged those interested in the parkway options to participate in the upcoming meeting.

The meeting was adjourned at approximately 7:20 PM.

ATTENDANCE – Landscaping Committee Members

Committee Members (+ indicates present at meeting, only for this category)

+	Margaret Dyson	City of Boston, Parks and Recreation Department
	Bob Corning	Boston Society of Landscape Architects
	Tel McCormick	Mass Bike
	Wendy Landman	Walk Boston
+	Bob Sloan	Walk Boston
+	Patrice Todisco	The Esplanade Association
	Renata von Tscharnner	Charles River Conservancy
	Pallavi Mande	Charles River Watershed Association
+	Stephanie Hurley	Charles River Watershed Association
+	Susan Barrow-Williams	Community Boating
	Sarah Monaco	Back Bay Garden Club
	Jackie Blombach	Back Bay Garden Club
+	Linda Cox	Beacon Hill Civic Association
	Sharon Malt	Beacon Hill Garden Club

Attendance – Transportation Committee Members

Committee Members

+ indicates present at meeting

+	Tom Nally	A Better City
+	Meg Mainzer-Cohen	Back Bay Association
+	Peter Thomson	Beacon Hill Civic Association
	Steve Young	Beacon Hill Civic Association
+	Elliott Laffer	Boston Groundwater Trust
	Michael Donovan	Boston University
	Jim Shaer	Boston University
	Leslie Greis	Cambridgeport Neighborhood Association
	Drew Phelps	Cambridgeport Neighborhood Association
	Kevin Casey	Harvard University
	Deborah Carrow	Back Bay Association
+	Bhupesh Patel	Livable Streets Alliance
+	Christi Apicella	MASCO
	Sarah Hamilton	MASCO
+	Kelley Brown	MIT
+	Steven Wintermeier	Neighborhood Association of Back Bay
+	Barry Solar	Neighborhood Association of Back Bay
	John Messervy	MGH/Partners HealthCare System, Inc.
	Bonnie Michelman	MGH/Partners HealthCare System, Inc.

+	Marilyn Wellons	Regional Transportation Advisory Council
	Larry Adkins	Riverside Neighborhood Association
	Malek Al-Khatib	West End Civic Association
	Robin Assaf	West End Civic Association
	Wendy Landman	Walk Boston
+	Bob Sloane	Walk Boston
+	Adam Shulman	City of Cambridge, Transportation Planning

Municipal and State Representatives

Tom Lisco	Central Transportation Planning Staff (CTPS)
John DeBenedictis	City of Boston
Joe Cosgrove	MBTA
Sanjay Kaul	CTPS
Bill Kuttner	CTPS
Scott Peterson	CTPS

Project Staff

Jim Baecker	DCR
Karl Haglund	DCR
David Lenhardt	DCR
Mike McCall	SGH
Nancy Farrell	RVA
Ken Petraglia	Beta Group
Mike Wisielewski	Beta

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